#### In the Claims:

## 1. (currently amended) A compound represented by formula I:

$$R^{40}$$
 $R^{40}$ 
 $R$ 

wherein,

n is [[1,]] 3, or 4;

R represents independently for each occurrence H, alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)<sub>3</sub>;

 $R^1$  and  $R^2$  are independently H, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)<sub>3</sub>; or  $R^1$  and  $R^2$  taken together are C(CH<sub>3</sub>)<sub>2</sub>, P(O)OH, or P(O)OR<sup>5</sup>;

 $R^3$  is amino,  $-N_3$ , or  $-NH_3X$ ;

 $R^4$  represents independently for each occurrence alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)<sub>3</sub>, or -P(O)(OR<sup>5</sup>)<sub>2</sub>;

R<sup>5</sup> represents independently for each occurrence H, Li<sup>+</sup>, Na<sup>+</sup>, K<sup>+</sup>, Rb<sup>+</sup>, Cs<sup>+</sup>, aryl, or an optionally substituted alkyl group; and

X is a halogen, alkyl carboxylate, or aryl carboxylate.

#### 2. (canceled)

3. (original) The compound of claim 1, wherein n is 3.

- 4. (original) The compound of claim 1, wherein R is H.
- 5. (original) The compound of claim 1, wherein R<sup>1</sup> and R<sup>2</sup> taken together are P(O)OR<sup>5</sup>.
- 6. (original) The compound of claim 1, wherein  $R^3$  is  $N_3$ .
- 7. (original) The compound of claim 1, wherein  $R^3$  is  $-NH_3X$ .
- 8. (previously presented) The compound of claim 1, wherein R<sup>4</sup> represents independently for each occurrence -CH<sub>2</sub>Ph, or -Si(alkyl)<sub>3</sub>.
- 9. (previously presented) The compound of claim 1, wherein R<sup>4</sup> represents independently for each occurrence -CH<sub>2</sub>Ph, -or P(O)OR<sup>5</sup>; and R<sup>5</sup> is an optionally substituted alkyl group.
- 10. (currently amended) A compound selected from the group consisting of:

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# 11. (previously presented) A compound represented by formula II:

wherein,

n is 3, or 4;

R represents independently for each occurrence H, alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)<sub>3</sub>;

R<sup>1</sup> is -(CH<sub>2</sub>)<sub>m</sub>CH=CH<sub>2</sub> or trichloroacetimidate; and

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m is 1-6.

- 12. (canceled)
- 13. (original) The compound of claim 11, wherein n is 3.
- 14. (original) The compound of claim 11, wherein m is 3.
- 15. (original) The compound of claim 11, wherein R represents independently for each occurrence -CH<sub>2</sub>-aryl or -Si(alkyl)<sub>3</sub>.
- 16. (original) The compound of claim 11, wherein R represents independently for each occurrence benzyl or -Si(iPr)<sub>3</sub>.
- 17. (previously presented) The compound of claim 11, wherein R<sup>1</sup> is trichloroacetimidate and R represents independently for each occurrence benzyl or -Si(iPr)<sub>3</sub>.
- 18. (previously presented) The compound of claim 11, wherein said compound of formula

  II is selected from the group consisting of:

# 19. (previously presented) A method comprising the step of:

admixing a compound represented by 
$$R_3$$
 with a compound represented by  $R_3$  with a

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iodosuccinimide and silver triflate, thereby forming a compound represented by

R represents independently for each occurrence H, alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)<sub>3</sub>;

 $R^1$  and  $R^2$  are independently H, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)<sub>3</sub>; or  $R^1$  and  $R^2$  taken together are C(CH<sub>3</sub>)<sub>2</sub>, P(O)OH, or P(O)OR<sup>5</sup>;

 $R^3$  is amino,  $-N_3$ , or  $-NH_3X$ ;

R<sup>5</sup> represents independently for each occurrence H, Li<sup>+</sup>, Na<sup>+</sup>, K<sup>+</sup>, Rb<sup>+</sup>, Cs<sup>+</sup>, aryl, or an optionally substituted alkyl group;

R<sup>6</sup> is alkyl or aryl;

R<sup>7</sup> is alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)<sub>3</sub>; and

X is a halogen, alkyl carboxylate, or aryl carboxylate.

- 20. (original) The method of claim 19, wherein R is -CH<sub>2</sub>-aryl.
- 21. (original) The method of claim 19, wherein  $R^1$  and  $R^2$  taken together are  $C(CH_3)_2$ .
- 22. (original) The method of claim 19, wherein R<sup>3</sup> is -N<sub>3</sub>.
- 23. (original) The method of claim 19, wherein R<sup>6</sup> is alkyl.
- 24. (original) The method of claim 19, wherein  $R^7$  is -C(O)-alkyl.
- 25. (original) The method of claim 19, wherein R is benzyl,  $R^1$  and  $R^2$  taken together are  $C(CH_3)_2$ , and  $R^3$  is  $-N_3$ .
- 26. (original) The method of claim 19, wherein R is benzyl, R<sup>1</sup> and R<sup>2</sup> taken together are C(CH<sub>3</sub>)<sub>2</sub>, R<sup>3</sup> is -N<sub>3</sub>, and R<sup>6</sup> is ethyl.
- 27. (previously presented) A method of preparing a tetrasaccharide, comprising the steps of:

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covalently binding a mannopyranoside to a solid support\_to provide a first substrate, reacting said first substrate with a mannopyranose trichloroacetimidate to give a disaccharide bound to said solid support, reacting said disaccharide with a mannopyranose trichloroacetimidate to give a triisaccharide bound to said solid support, reacting said trisaccharide with a mannopyranose trichloroacetimidate to give a tetrasaccharide bound to said solid support, and cleaving said tetrasaccharide from said solid support.

- 28. (original) The method of claim 27, wherein said mannopyranoside is bound to said solid support through a glycosidic linkage.
- 29. (original) The method of claim 27, wherein said tetrasaccharide is cleaved from said solid support using Grubbs' catalyst.
- 30. (previously presented) The method of claim 27, wherein said tetrasaccharide is

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## 31. (previously presented) A compound represented by formula I:

wherein,

R represents independently for each occurrence H, alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)<sub>3</sub>;

 $R^1$  and  $R^2$  are independently H, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)<sub>3</sub>; or  $R^1$  and  $R^2$  taken together are C(CH<sub>3</sub>)<sub>2</sub>, P(O)OH, or P(O)OR<sup>5</sup>;

 $R^3$  is amino,  $-N_3$ , or  $-NH_3X$ ;

 $R^4$  represents independently for each occurrence H, alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)<sub>3</sub>, or -P(O)(OR<sup>5</sup>)<sub>2</sub>;

R<sup>5</sup> represents independently for each occurrence H, Li<sup>+</sup>, Na<sup>+</sup>, K<sup>+</sup>, Rb<sup>+</sup>, Cs<sup>+</sup>, aryl, or an optionally substituted alkyl group; and

 $R^6$  represents independently for each occurrence alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)<sub>3</sub>, or -P(O)(OR<sup>5</sup>)<sub>2</sub>;

X is a halogen, alkyl carboxylate, or aryl carboxylate.

- 32. (previously presented) The compound of claim 31, wherein R is H.
- 33. (previously presented) The compound of claim 31, wherein R<sup>1</sup> and R<sup>2</sup> taken together are P(O)OR<sup>5</sup>.
- 34. (previously presented) The compound of claim 31, wherein R<sup>3</sup> is -NH<sub>3</sub>X.
- 35. (previously presented) The compound of claim 31, wherein R<sup>4</sup> is H.
- 36. (previously presented) The compound of claim 31, wherein R<sup>6</sup> is -P(O)(OR<sup>5</sup>)<sub>2</sub>.
- 37. (previously presented) The compound of claim 31, wherein R is H; R<sup>1</sup> and R<sup>2</sup> taken together are P(O)OR<sup>5</sup>; R<sup>3</sup> is -NH<sub>3</sub>X; R<sup>4</sup> is H; and R<sup>6</sup> is -P(O)(OR<sup>5</sup>)<sub>2</sub>.
- 38. (new) A compound represented by formula I:

wherein,

n is 1;

R represents independently for each occurrence H, alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, or -Si(alkyl)<sub>3</sub>;

 $R^1 \ \text{is -CH$_2$-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)$_{3;}$}$ 

 $R^2$  is -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)<sub>3</sub>; or  $R^1$  and  $R^2$  taken together are C(CH<sub>3</sub>)<sub>2</sub>, P(O)OH, or P(O)OR<sup>5</sup>;

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 $R^3$  is amino,  $-N_3$ , or  $-NH_3X$ ;

R<sup>4</sup> represents independently for each occurrence alkyl, aryl, -CH<sub>2</sub>-aryl, -C(O)-alkyl, -C(O)-aryl, -Si(alkyl)<sub>3</sub>, or -P(O)(OR<sup>5</sup>)<sub>2</sub>;

R<sup>5</sup> represents independently for each occurrence H, Li<sup>+</sup>, Na<sup>+</sup>, K<sup>+</sup>, Rb<sup>+</sup>, Cs<sup>+</sup>, aryl, or an optionally substituted alkyl group; and

X is a halogen, alkyl carboxylate, or aryl carboxylate.